



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,331	02/04/2002	Gunter Kunze	72.053	9486
23598	7590	12/05/2005	EXAMINER	
BOYLE FREDRICKSON NEWHOLM STEIN & GRATZ, S.C. 250 E. WISCONSIN AVENUE SUITE 1030 MILWAUKEE, WI 53202			SOOHOO, TONY GLEN	
		ART UNIT	PAPER NUMBER	
			1723	

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/937,331	KUNZE ET AL.	
	Examiner	Art Unit	
	Tony G. Soohoo	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 23 September 2005.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 13-24 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 August 1951 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.

- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature of the light bar display of claims 22-23 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 13-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. While the disclosure is enabled for a measurement device for measuring RPS and a circuit to determine RPM and to conclude that a slow RPM may indicate empirically that the cement/concrete appears to be hardening or thickening, it does not provide an enablement for the algorithm which uses RPM change or motion or vibration, or oscillatory amplitude or oscillatory frequency, or winding temperature of the motor as a parameter to determine a "densified state" of the material in a quantitative sense. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make a circuit and algorithm of the invention, nor the best mode of such algorithm of the invention commensurate in scope with these claims to a particular "change in densified state".

Claims 22-23 contains subject matter which was not described in the specification in such a way as to enable and adequately describe the best mode to one skilled in the art to which it pertains, or with which it is most nearly connected, to make

Art Unit: 1723

and/or use the invention with regards to the manner in which to produce the light bar and illumination and variable brightness of the light of claims 22 and 23 circuit to display the value.

Claim 24 contains subject matter which was not described in the specification in such a way as to enable and adequately describe the best mode to one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention with regards to the manner in which the circuit is made to determine an "***optimum densification state***".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 13-14, 21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 1097651, (GB '651) cited on PTO 1449.

The GB '651 reference discloses a vibration unit 8, switch 10, a measuring device 3 for determining the power load which provides an indication of a meter reading signal so one may evaluate the measured value

Note that the meter reading may be used as an indicator of RPM and that the movement of the meter reading of increasing load (lower RPM) would provide for a person having ordinary skill in the art a manner to determine the change in the density state of the concrete that it is hardening.

With regards to claim 24, one a user of ordinary skill in the art may determine by his or herself the desired densification state corresponding to an RPM, thus when the device detects and displays the RPM corresponding to the RPM/densification state in which the user desired, the display would detect the optimum densification state.

6. Claims 13-17, 21 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Heimbruch et al 5992238.

The Heimbruch (et al '238) reference discloses a vibration unit 12, electric motor 18, switch to turn the motor on and off (not shown but assumed as inherent for all power drive motors), a measuring device (magnetic pickup sensor 40 and permanent magnet 42 or Hall type sensor) for determining the vibration speed of the vibrator which provides an indication of an electrical reading signal so one may evaluate the measured value by the display 66, and recorder 102. Any change in speed is a measurement of acceleration.

Note that the meter reading may be used as an indicator of gear RPM and that the movement of the meter reading of increasing load (lower RPM) would provide for a person having ordinary skill in the art a manner to determine the change in the density state of the concrete that it is hardening, see also column 1, lines 35-46 and column 6, lines 8-24.

With regards to claim 24, one a user determines by his or herself the desired densification state corresponding to an vibration speed RPM, thus when the device detects and displays the RPM corresponding to the RPM/densification state in which the user desired, the display would detect the optimum densification state.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 18-20 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heimbruch et al 5992238.

The Heimburch et al reference discloses all of the recited subject matter as defined within the scope of the claims with the exception of having the measurements utilizing accelerometers positioned in perpendicular axes of the longitudinal axis of the vibration unit as recited in claims 18-20, and the exception of the use of a light bar or variable brightness display to display the state of vibration speed

With regards to the use of accelerometers, such device are old and well known in the art of vibration and speed measurement and the positioning of such meters upon perpendicular axes are well known.

Accordingly ,it is deemed that it would have been obvious to one of ordinary skill in the art to substitute for the Hall sensors of measuring devices with plural accelerometers positioned in perpendicular axes so as to provide a more precise measurement of vibration.

With regards to the use of a light bar and variable brightness display, in the art of visual display meters, light bars and variable brightness displays are commonly known devices to display value intensity, accordingly, it is deemed that it would have been obvious to one of ordinary skill in the art to substitute for the display 66 of Heimbruch with such a display in order to more easily convey the intensity of the vibration.

Response to Arguments

9. Applicant's arguments filed 8-29-2005 have been fully considered but they are not persuasive.

Applicant argues that the GB '651 reference dos not disclose any of the claimed operating parameters as recited in claim 13. It is noted that the GB reference discloses a measuring device 3 for determining the power load which provides an indication of a meter reading signal so one may evaluate the measured value. The meter reading may be used as an indictor of RPM and that the movement of the meter reading of increasing load (lower RPM) and thus corresponded and indicate to a person having

Art Unit: 1723

ordinary skill in the art to determine the change in the density state of the concrete that it is hardening.

Applicant argues that the Heimbruch et al reference does not disclose any correlation of the vibrating speed to a density of the compaction of the concrete. In response, the a measuring device (magnetic pickup sensor 40 and permanent magnet 42 or Hall type sensor) for determining the vibration speed of the vibrator which provides an indication of an electrical reading signal so one may evaluate the measured value by the display 66, and recorder 102. Note that the meter reading may be used as an indicator of the movement of the vibrator and the meter reading of increasing load (lower RPM) would provide for a person having ordinary skill in the art a manner to determine the change in the density state of the concrete that it is hardening, see also column 1, lines 35-46 and column 6, lines 8-24.

Response to Amendment

10. The Declaration under 37 CFR 1.132 filed 8-29-2005 is insufficient to overcome the rejection of claims 13-24 based upon a non-enabling disclosure and failure to provide a best mode of carrying out the invention as set forth in the last Office action and in this Office action herein because: A statement by applicant that applicant may sufficiently enable the invention by reading applicant's own disclosure, and the statement that one may easily perform tests and data which applicant considers as being routine does not provide sufficient enablement. The original disclosure or declaration does not point out evidence of applicant's possession and disclosure of data values, formula, or tables of determining the correspondence of: densified material of

any flowing material to a vibrator characteristic of any of the following: acceleration, or motion, or oscillatory frequency, or oscillatory amplitude, or RPM of the motor, or electric excitation frequency of the motor, or winding temperature of a stator of the motor. Nor does the decoration or disclosure point out commonly known evidence of such data values, formula, or tables available to a person having ordinary skill in the art to make such an evaluation circuit.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony G. Soohoo whose telephone number is (571) 272 1147. The examiner can normally be reached on 7-5PM,Tue-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tony G Soohoo
Primary Examiner
Art Unit 1723